LBL-group meeting

neutrino.lbl.gov/∼snoman/currat/talks/

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- Update on muons generation in Snoman (v.4_0285 → v.4_0286)
- Other news: muon group get together in Vancouver on Jan 28th/29th
  ⇨ discussions/getting ready for papers

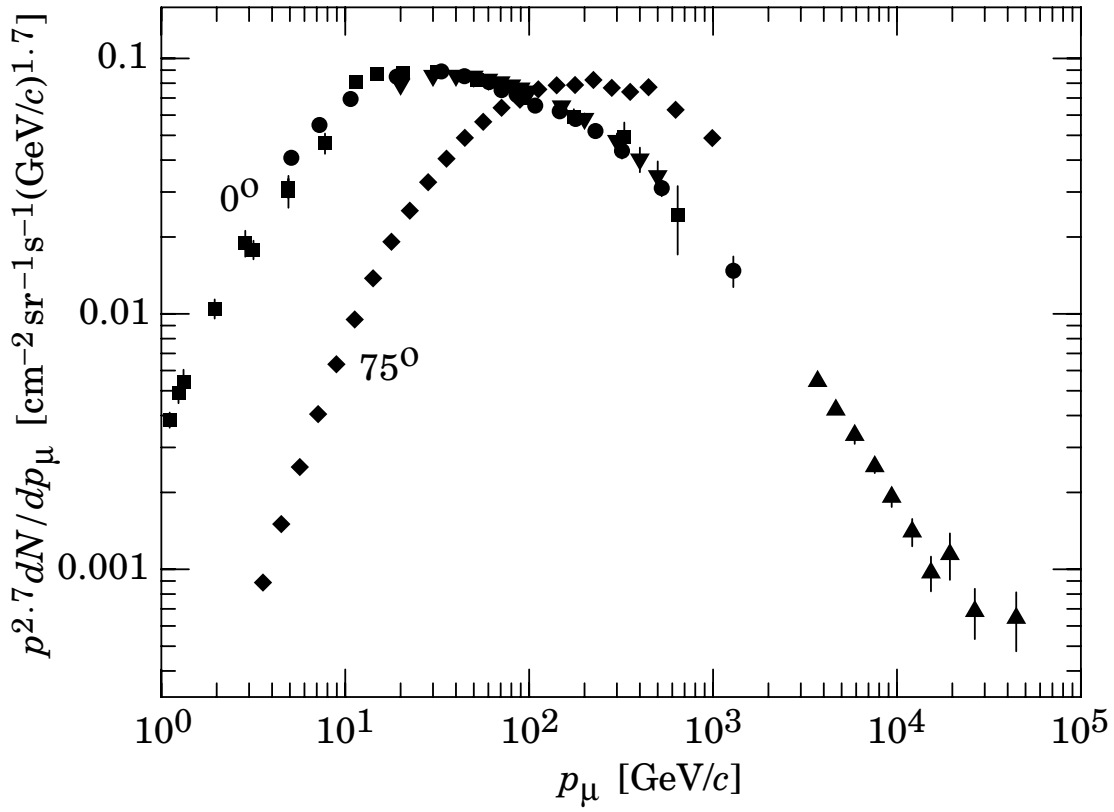
Muons

A couple of bugs have been fixed in the muons generation code. They all eventually resulted in a "`Store full`" error for $E(\mu) > 500$ MeV in v.4_0285

- v.4_0285 fixes the muon capture on ^{16}O seen in v.4_0282
- typo in the determination of outgoing μ direction in elastic scattering
- hadrons might never get recognized as at rest (tolerance around rest mass criterion) and would never stop
- no check on the energy lost in the last step before μ gets at rest ⇨ O(100 MeV – 1 GeV) of unphysical energy in the event
- initialization of the cross sections for μ interactions
- crashes when belly plate geometry is enabled. OK when disabled.

Cosmics

Now generation of cosmic μ over full range of E spectrum is possible, i.e. up to several TeV!! Still 20% of events yielding a store full.



☞ Tracking the problem. Related to electron generation (δ-rays, pairs) and ensuing Cerenkov photons. Not sure `killvx` might be enough to gain control.